

River. The same species was seen at Wray, Colorado. In northwestern Kansas, at St. Francis, *E. laevigatum* was found on the wet sandy banks of the Republican River while *E. kansanum* was growing in a grassy creek bottom near swampy ground.

No more Equisetum was seen until we were going through the broad Republican River valley, north of Concordia, where tall *E. laevigatum* was present in abundance along the road. Finally we arrived for a five-weeks' stay at our Prairiedell Farm, near Morganville, Kansas, where *E. kansanum* grows in suitable habitats on the upland, especially on clay banks and *E. laevigatum* on the flood plain of the Republican River. *E. praealtum* also grows along streams but is seldom found and the same is true for *E. arvense*. For over 30 years I have only seen *E. arvense* persisting in one spot. On the farm of my old friend, Jules Desjardins, is a perennial spring, flowing out of sandstone into a creek bottom, and here a few individuals of *E. arvense* struggle along through wet season and drought, from year to year, with some individuals of *Woodsia obtusa* as neighbors. They would have to travel many miles to find another suitable spot in which survival would be possible.

COLUMBUS, OHIO

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### A Note on *Asplenium pinnatifidum* Nuttall

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For some time the occurrence of *Asplenium pinnatifidum* Nutt. in New England has been questioned. In 1920 the Committee on Floral Areas of the New England Botanical Club stated (4) that, "*A. pinnatifidum* is reported from Sharon and Southington, Conn. The



specimen from Southington in the Gray Herbarium, however, is not *A. pinnatifidum*, but a state of *A. ebenoides* with obtuse segments; that record may be founded on an error in determination. There seems no reason to doubt the Sharon report."

Examination of the material in the Eaton Herbarium at Yale University, which includes the Bissell Collection, bears out this statement as regards the Southington specimens, and one from New Britain as well. In all cases the supposed *A. pinnatifidum* proves to be *A. ebenoides* R. R. Scott.

The Sharon specimens have generally been accepted as good *A. pinnatifidum* by fern authorities, and the species is listed from this station in most current floras and fern books. Material of the original collection made by Mr. E. I. Huntington was given to the senior author, who first reported the find (2, 3). Although the original determination was verified by other experts, it was never entirely satisfactory. A recent reexamination of the material has convinced the authors that this plant, also, is *A. ebenoides*. The somewhat irregular shape of the fronds, the dark rachis, and the limestone habitat have led them to this conclusion. This definitely eliminates *Asplenium pinnatifidum* from the New England flora.

As there does not seem to be any record of *A. pinnatifidum* from New York state, Blairstown, New Jersey, now stands as the most northeastern station for this species. A specimen from this station from the colony originally reported by Macy Carhart (1), and now in the Fern Society herbarium, (Sheet no. 2594), has been identified as *A. Trudelli* Wherry. As Wherry himself points out (5), this latter species is scarcely more than a form of *A. pinnatifidum*, or possibly a hybrid of it.



Consequently there seems no reason for omitting the Blairstown station from the range of our plant.

The distribution of *Asplenium pinnatifidum*, therefore, may be said to be from Blairstown, New Jersey, and Youngstown, Ohio, south to Cartersville, Georgia, and west to Mine La Motte, Missouri (6), a region which lies approximately between the 41st and 30th parallels of latitude.

#### LITERATURE CITED

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4. Knowlton, C. H., Ripley, W. S., Jr., and Weatherby, C. A. Second Report of the Committee on Floral Areas. *Rhodora* 22: 80-89. 1920.
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### Recent Fern Literature

Professor Boris Fedtschenko has kindly sent us a copy of an excellent article by him on the altitudinal distribution of ferns in the mountains of Turkestan. That seems a long way off; but a glance at Professor Fedtschenko's pages reveals such familiar names as *Woodsia ilvensis*, *Cystopteris fragilis*, *Dryopteris Thelypteris*, *Asplenium Trichomanes*, and *Ophioglossum vulgatum*,—in all, 13 species which occur in the United States out of 23 listed.

There are six mountain systems in Turkestan, all but one of which reach, at their highest points, 10,000 feet or more; one rises 24,000. The Tian-Shan, on the frontier of China, has the moistest climate, the most forests, and, in consequence, the most ferns (18 species). The heights